

PREMIUM LINE

MADI Solutions

News 2013



RME
INTELLIGENT AUDIO SOLUTIONS

Being an early adopter and pioneer in MADI technology, RME developers have always been dedicated to making the MADI protocol compatible, stable, and affordable for their customers.

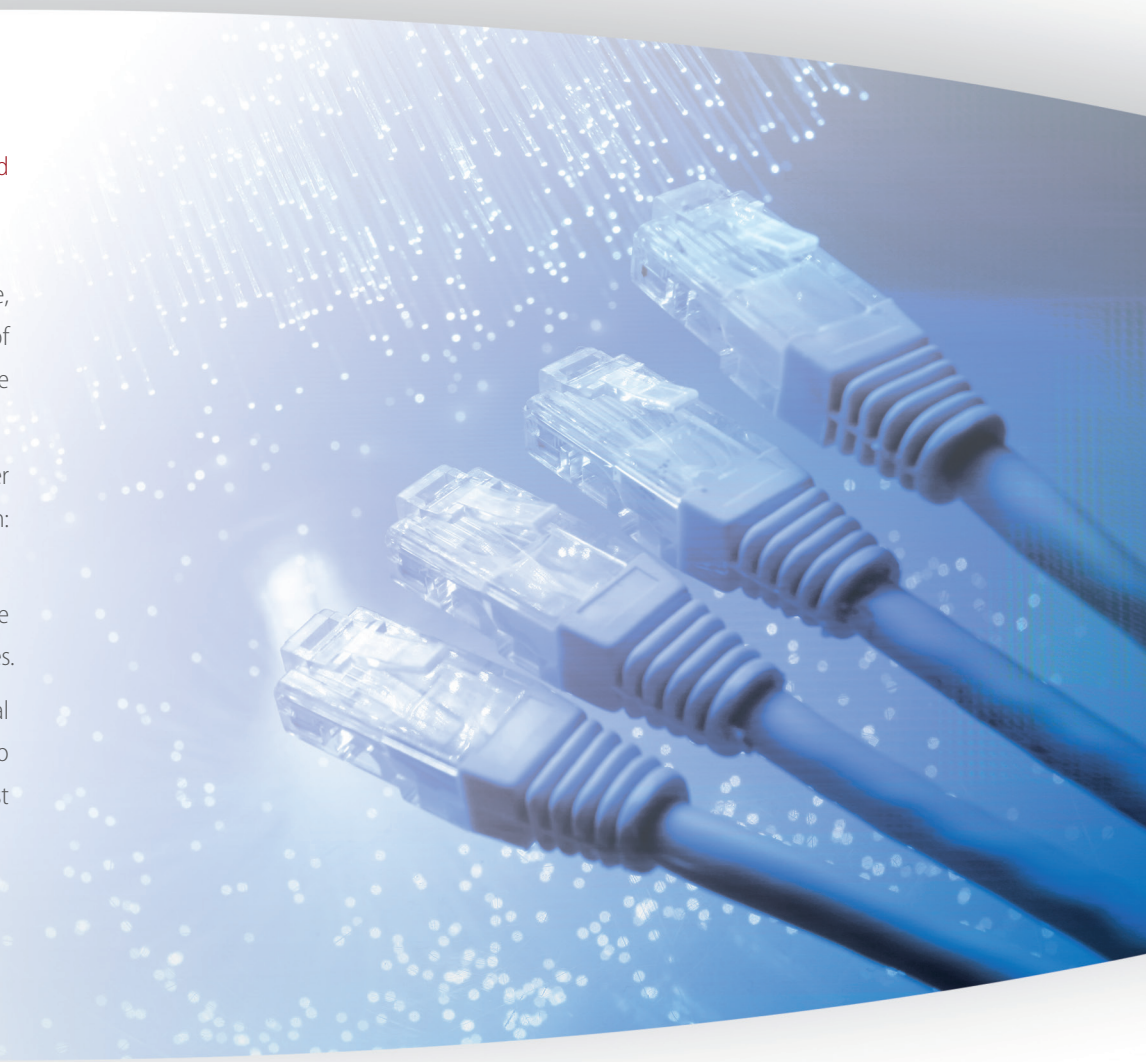
RME's ADAT and AES3 converters (ADI-648, ADI-6432, ADI-648), interconnect solutions (MADI Bridge, MADI Converter) and computer interfaces (HDSP MADI, HDSPe MADI) have gained a reputation of being unmatched in terms of feature set and reliability. In over a decade RME made MADI more popular than any other manufacturer.

This year, RME introduces a whole new family of products: from the world's first USB3 audio interface over the world's most portable MADI solution to 5 new router/converter devices in a striking new design: the new MADI Router, the ADAT Router and ADAT Converter, and the AES3 Router and AES3 Converter.

A novelty that all five products have on board is the new RJ45 connector for MADI, which extends the existing two media options, optical cables and coaxial cables, by a third one: standard networking cables.

Making use of twisted pair Ethernet cables for multichannel audio signals brings along several advantages that optical and coaxial cables were lacking: bidirectional audio transmission between two devices over one cable, power supply, and unmatched availability of cables at a fraction of cost compared to traditional MADI cabling.

Depending on the type of cable, cable lengths of up to 100m (330 ft.) can be achieved.



The world's first USB3 audio interface. **MADIface XT**



Features

- 196 Input / 198 Output channels
- 2 x MADI I/O optical
- 1 x MADI I/O coaxial
- 2 x Analog Mic / Line Preamp Input (XLR/Line TRS)
- 4 x Analog Output (Main XLR + Phones)
- 1 x AES/EBU I/O via breakout cable
- 1 x MIDI I/O via breakout cable
- 3 x virtual MIDI I/O via the three MADI I/Os

The RME MADIface XT is the world's first USB3 audio interface – and the world's smallest portable interface that provides access to hundreds of audio channels in a highly portable package. For highest compatibility the XT also features a PCI Express port for connection to External PCI Express cards, providing the fastest interfacing technologies available for maximum channel count and lowest latency.

Three 64-channel MADI I/Os are accompanied by 4 MIDI I/Os, one stereo AES/EBU and a word clock I/O. To bring together the most complete I/O set for live or studio usage, two digitally controlled high-end mic/line preamps, two balanced line outputs and one stereo phones output, all fully 192 kHz capable, were included.

For perfect desktop operation RME's Advanced Remote Control can be connected (option).

MADI Router

Unlimited flexibility for multichannel audio.

Router



The MADI Router has four groups of three different MADI I/Os each and may be used as a patch bay and format converter between those. Apart from the fully transparent, stream-wise operation between its ports it excels the well-known MADI Bridge by letting users create output signals that combine audio channels from different MADI inputs ("Any-to-any").

The device is controlled directly at the unit, where a full-color TFT display informs the user about the current input status and routing situation. Channels from any input group can be copied to different output groups in blocks, which ensures flexibility while maintaining clarity and easy access.

Presets can be stored both on the device itself and on an attached USB memory stick.

Features

- 12 bridged MADI streams, including
- 4 composed MADI streams
- On-screen routing in 8-channel groups
- 12 MADI ports (4 x optical, 4 x coaxial, 4 x twisted pair)
- Redundant power supplies
- Word Clock I/O
- RME redundancy mode support
- USB connector for firmware updates and preset storage

Splitting, combining and converting real-time signals.

AES3 Router



Features

- 4 AES3 D-Sub connectors, configurable as:
32 audio I/O, or 64 audio inputs, or 64 audio outputs
- 4 MADI Ports (1 x optical, 1 x coaxial, 2 x twisted pair)
- MADI stream splitting for DS (96k) and QS (192k)
- MADI TP with power supply
- On-screen routing of individual channels
- MIDI In/Out for embedding/disembedding MIDI over MADI
- SYNC port accepting word clock or AES3 audio signals
- USB connector for firmware updates and preset storage
- Redundant power supplies

Following in the footsteps of the ADI-642 and ADI-6432, RME presents a device that takes the best of both units: channel-wise routing and multiple AES3/MADI conversion capabilities. Apart from optical, coaxial and twisted pair MADI connections, the AES3 Router provides four D-sub 25-pin ports, carrying 32 audio channels both in and out of the device. However, the ports can be configured to be send-only or receive-only ports, resulting in 64 audio channel outputs or 64 audio channel inputs.

The multiple MADI ports can be used as redundant outputs, or, if needed, as split outputs to accommodate AES3 signals with double or quad speed sampling rates.

All features can be conveniently controlled on the unit itself, where a menu guides the user easily through routing, storage and setup.

AES3 Converter

The perfect extension to a router.

Converter



The AES3 Converter is a great companion to either one of the routers. It provides the same flexible AES3 technology as the Router, however without routing capabilities and therefore the need for control.

Even though MADI TP is a bi-directional MADI port, there are two connectors at the unit: the first one is “up-stream” to the router, receiving synchronization and power. The second one is “down-stream” to a second converter, providing the second unit with power and synchronization. This way, the Router receives all signals from both Converters, while the Converters both receive the signals from the Router.

Features

- 4 AES3 D-Sub connectors, configurable as:
 - 32 audio inputs and outputs, or
 - 64 audio inputs, or
 - 64 audio outputs
- 2 x MADI TP ports receiving and passing through power
- Word clock I/O

Lightpipe meets MADI TP - channel-wise. ADAT Router



Features

- 8 ADAT Lightpipe inputs (64 audio channels @48k)
- 8 ADAT Lightpipe outputs (64 audio channels @48k)
- 4 MADI Ports (1 x optical, 1 x coaxial, 2 x twisted pair)
- MADI TP with power supply
- On-screen routing of individual channels across MADI and ADAT
- MIDI In/Out for embedding/disembedding MIDI over MADI
- SYNC port accepting word clock or AES3 audio signals
- USB connector for firmware updates and preset storage
- Redundant power supplies

ADAT Lightpipe, originally designed by Alesis®, is an established standard for eight channel audio transmission over short optical cables. The ADAT Router acts as a gateway to the MADI world. It is based on the design of the ADI-648, providing eight optical ADAT inputs, eight ADAT outputs, and MADI connectors for optical, coaxial, and MADI Twisted Pair connections. All audio channels can be freely routed between MADI and ADAT.

Other than standard single speed applications, the ADAT Router is also capable of handling sample multiplexed ADAT signals (four channels at 96k / DS, two channels at 192k / QS per port) and merging them into a MADI stream.

ADAT Converter

Zero configuration. 64 in, 64 out.

Converter



The ADAT Converter is an extension to either one of the routers, which provides the required power to this unit over the MADI Twisted Pair connection. Therefore, no additional power supply is needed.

The ADAT Converter translates the signals of up to eight ADAT inputs to MADI TP, and sends the signals from its MADI input to the eight ADAT outputs.

Features

- 8 ADAT Lightpipe inputs (64 audio channels @48k)
- 8 ADAT Lightpipe outputs (64 audio channels @48k)
- 2 x MADI TP ports receiving and passing through power
- SYNC port accepting word clock or AES3 audio signals

The all-purpose preamp. OctaMic XTC



Features

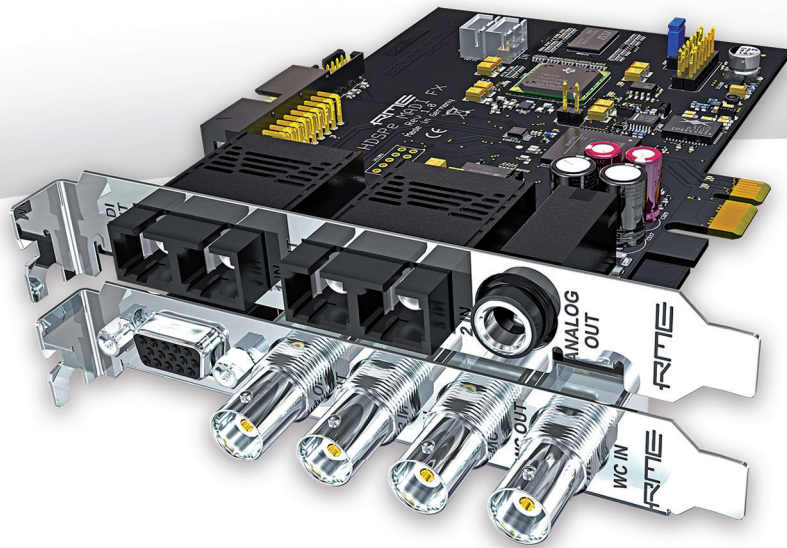
- 8 x Mic/Line Preamps, digitally controlled (4 x PAD, 4 x Hi-Z switchable)
- 2 x Stereo Analog Outputs
- 4 x AES/EBU I/O
- 1 x ADAT I/O (2 x out S/MUX)
- 1 x MADI I/O optical
- 1 x MIDI I/O DIN
- 2 x MIDI I/O USB
- 1 x MIDI over MADI

The OctaMic XTC is the swiss army knife among RME's interfaces. An advanced eight channel microphone/line/instrument preamplifier with 192 kHz/24 bit A/D conversion and AutoSet, four channel D/A conversion for analog or digital input monitoring, and full MIDI remote control via USB, DIN and MADI were not enough to stop RME's engineers. ADAT, AES and MADI optical operate as outputs as well as full-channel inputs, easily patched and routed with the comfortable TFT display - turning the XTC into a full blown digital format converter.

Quick access to all functions make the XTC extremely fast and easy to set up. Its complete state can be saved and recalled from internal presets.

HDSPe MADI FX 390 channels. Plus effects.

PCI Express audio card



HDSPe OPTO-X

Optical Extension Board (optional)

1 x MADI I/O Optical for use with
MADI FX mainboard

The HDSPe MADI FX marks a new milestone both in the history of audio interface cards in the past two decades and within the long series of outstanding RME devices. Never before has such a high-performance multi-channel audio system existed.

The HDSPe MADI FX features 390 audio channels! Three MADI I/Os - two optical and one coaxial – are accompanied by one AES/EBU I/O and one analog monitoring output. To complete the feature set, a Word Clock connection and four MIDI I/Os were added. The complete technology and connectivity are highly integrated into the smallest possible amount of space - typical for RME. Only one PCIe slot is required on the motherboard, plus one free slot opening on the case.

Features

- 194 input- / 196 output channels = 390 channels
- 3 x MADI I/O (2 x optical + 1 x coaxial)
- AES/EBU I/O (via breakout cable)
- 3 x virtual MIDI I/O over MADI
- 1 x MIDI I/O via 5-pin DIN (breakout cable)
- Stereo Analog Out
- Word Clock I/O (BNC)
- Optional: HDSPe OPTO-X



Features

- 64 Input channels / 64 output channels
- 1 x MADI I/O (optical and coaxial)
- TotalMix
- No external power supply required
- Stand-alone Mode (repeater / format converter)

The MADIface USB is a compact device that provides MADI I/O via USB2 while supporting the format's full 64 channels. Its sturdy and bus-powered design makes it as easy to use as reliable in operation. SteadyClock as well as RME's well known MADI compatibility ensure hassle-free operation with other devices.

The optical and coaxial input offers RME's Seamless Redundancy operation, switching between the two inputs in real-time if one of the signals fails. The optical and coaxial MADI outputs operate simultaneously.

The RME driver architecture for Mac and PC features TotalMix, a low latency 48bit internal mixer and routing matrix, and MIDI over MADI technology that may be used to remote-control other MADI devices. DIGiCheck, an included complete audio analyzing suite, supports the user under Mac OS X and Windows.

Content

Introduction	2	ADAT Router	7
MADIface XT	3	ADAT Converter	8
MADI Router	4	OctaMic XTC	9
AES3 Router	5	HDSPe MADI FX	10
AES3 Converter	6	MADIface USB	11



Worldwide Distribution
audioag

Audio AG . Am Pfanderling 60 . 85778 Haimhausen, Germany
 Tel: +49 (0) 8133 / 918170 . Fax: +49 (0)8133 / 9166
 E-Mail: info@audioag.com
 Internet: www.audioag.com

All Trademarks are the property of their owners.
 ADAT a registered trademark of Alesis Corporation.
 © Audio AG 2013
 All specifications are subject to change without further notice.